### Strategic Cybersecurity Needs as viewed from

**NSF** Secure and Trustworthy Cyberspace (SaTC)

Presented by Jeremy Epstein

**Lead Program Officer** 

Government Sponsored Cyber-Sec Research: Visions For The Next Decade Stony Brook National Security Institute (NSI) Grand Opening Sep 12 2014

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### (1) Top 5 cyber threats to national security in the coming decade

#### Institutional threats:

- Tampering/damage to cyber physical systems
- Theft of intellectual property
- Economic impact of continuing breaches on consumer confidence

#### Individual threats:

- Privacy risks from sharing, ubiquitous systems, etc.
- Personalization vs. privacy tradeoffs
- Everyone is their own sysadmin





## (2) Top 5 technology areas where funding and research is critical to national security in the coming decade

- Cybereconomics how can we change incentives, price insurance, etc.
- Cyber physical systems security
- Usable security & privacy
- Safe(r) cloud computing
- Increased transition from research to practice

#### Bonus!

- Technology understanding among policy makers
- Adequate workforce training





# (3) Alignment of funding priorities with (1) and (2) & future plans to better interact and provide incentives for the research community

NSF Secure and Trustworthy Cyberspace (SaTC) (14-599)

- Includes cybereconomics, usable security, cyber physical systems security, transition to practice
- Submission deadlines:

Small: January 02, 2015 - January 14, 2015

Medium: October 27, 2014 - November 10, 2014

Large: November 12, 2014 - November 20, 2014

Education: December 04, 2014 - December 19, 2014

NSF/Intel Partnership on Cyber-Physical Systems Security and Privacy (CPS-Security) (14-571)

- Synergy (up to \$3M/3 years) & Breakthrough (up to \$500K/3 years) awards
- Submission deadline Oct 28, 2014





## (4) How can government help streamline cyber security technology transfer in both the commercial and the government space

NSF SaTC TTP Option – funding for transitioning research NSF I-Corps – training for transition US-Israel BSF International Opportunity Coming soon – other opportunities!





### (5) Cyber security strengths and opportunities in the greater NY area









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